What is claimed is:

1.   A device for setting a hysteresis characteristic with respect to an input signal, said device comprising:

a voltage dividing circuit for dividing a voltage of said input signal into a first voltage and a second

5   voltage which is lower than said first voltage; and

a computer including a first port to which said first voltage is given, and a second port to which said second voltage is given, said computer performing a predetermined software process to set a hysteresis

10 characteristic;

wherein said computer performs a software process of:

when said voltages given to said first and second ports are equal to or higher than a predetermined

15 threshold, determining said input signal to have a high level;

when said voltage given to said first port is equal to or higher than the threshold and said voltage given to said second port is lower than the threshold, making a same

20 determination as a immediately preceding determination; and

when said voltages given to said first and second ports are lower than the predetermined threshold, determining said input signal to have a low level.

2.   The device for setting a hysteresis characteristic

16

according to Claim 1,

      wherein said voltage dividing circuit includes first and second resistors which are connected to each other in series,

      wherein a first end of said first resistor is connected to said first port, a second end of said first resistor is connected to a first end of said second resistor and said second port, said input signal is input to said first end of said first resistor, and

      wherein a second end of said second resistor is grounded.

3.   A device for setting a hysteresis characteristic with respect to an input signal, said device comprising:

      a pre-processing section for reducing noise of said input signal;

      a voltage dividing section for dividing a voltage of said pre-processed input signal into a first signal and a second signal;

      a characteristic setting section including a first comparator for comparing said first signal with a predetermined threshold, and a second comparator for comparing said second signal with said predetermined threshold, for setting a hysteresis characteristic based on results of said first comparator and second comparator;

      wherein said voltage dividing section divides said

17

15   pre-processed input signal so that a voltage of said second
      signal is lower than a voltage of said first signal, and

                wherein said setting section sets a hysteresis
      characteristic in such manner that:

                when both of said first signal and said second
20   signal are equal to or higher than said predetermined
      threshold, said setting section outputs a high level
      signal;

                when both of said first signal and said second
      signal are lower than said predetermined threshold, said
25   setting section outputs a low level signal;

                when said first signal is equal to or higher than
      said predetermined threshold and said second signal is
      lower than said predetermined threshold, said setting
      section outputs a same level signal as a immediately
30   preceding output signal.

4.   The hysteresis characteristic setting device
      according to Claim 3,

                wherein said voltage dividing section includes at
      least two resistors connected in series with each other.

5.   The hysteresis characteristic setting device
      according to Claim 3,

                wherein said voltage dividing section includes
      three resistors connected in series.

18

6. The hysteresis characteristic setting device according to Claim 3,

wherein said pre-processing section is a low-pass filter.

7. A method for setting hysteresis characteristic in respect to an input signal, said method comprising the steps of:

pre-processing for reducing noise of said input signal;

voltage dividing for dividing said pre-processed input signal into a first signal and a second signal which is lower than said first signal;

first comparing for comparing said first signal with a predetermined threshold;

second comparing for comparing said second signal with said predetermined threshold; and

characteristic setting for setting hysteresis characteristic based on results of said steps of first comparing and second comparing;

wherein, in said characteristic setting step,

said hysteresis characteristic of said input signal is defined as high level of output signal in case that said first signal is equal to or higher than said predetermined signal in result of said first comparing step and said

19

second signal is equal to or higher than said predetermined
threshold in result of said second comparing step,

said hysteresis characteristic of said input signal
is defined as low level of output signal in case that said
25   first signal is lower than said predetermined threshold in
result of said first comparing step and said second signal
is lower than said predetermined threshold in result of
said second comparing step, and

said hysteresis characteristic of said input signal
30   is defined as same as an immediately preceding output
signal in case that said first signal is equal to or higher
than said predetermined threshold in result of said first
comparing step and said second signal is lower than said
predetermined threshold in result of said second comparing
35   step.

8.   The method according to Claim 7, further comprising
the step of:

recording for writing said output signal of said
characteristic setting step into a memory when said output
5   signal is difference from a previous output signal.

9.   The method according to Claim 7,

wherein said voltage dividing step is executed by
at least two resistors connected in series with each other.

10.   The method according to Claim 7,

        wherein said pre-processing step is executed by a

low-pass filter.